

ED21.2: H349



312066 0271 3190 6

HEALTH EDUCATION
IN
MASSACHUSETTS PUBLIC SCHOOLS
A SUMMARY REPORT

BOARD OF EDUCATION

MRS. RAE CECILIA KIPP, Chairman

JOHN S. SULLIVAN, Vice-Chairman

RICHARD L. BANKS

WALTER N. BORG

MRS. RAMONA CORRIVEAU

WILLIAM P. DENSMORE

J. RICHARD EARLY

ALLAN R. FINLAY

WILLIAM H. GASSET

JOSEPH SALERNO

JOSEPH G. WEISBERG

NEIL V. SULLIVAN, Secretary

Members Ex Officiis:

EDWARD C. MOORE, Chancellor of the Board
of Higher Education

WILLIAM C. GAIGE, Director of Research,
Advisory Council on Education

COMMISSIONER OF EDUCATION

NEIL V. SULLIVAN

DEPUTY COMMISSIONER OF EDUCATION

THOMAS J. CURTIN

ASSOCIATE COMMISSIONER OF EDUCATION

MAX BOGART

DIRECTOR, BUREAU OF ELEMENTARY AND SECONDARY EDUCATION

LAWRENCE M. BONGIOVANNI

COORDINATOR

H. MARIE GARRITY

FOREWORD

In the spring of 1969, a "Policy Statement on School Health Education" was sent to all superintendents identifying the responsibility of the schools for a comprehensive school health program. To gather information on the status of health education throughout the Commonwealth, a questionnaire was then mailed to each superintendent. The results of the survey are presented in this report. The reader will find evidence of needs yet to be met in the area of health education.

This report should provide school administrators throughout the Commonwealth with the substantive elements to assess health education and to realize a new program. The critical health problems in the Commonwealth and in the nation substantiate the need for prevention in approaching the solution of these problems. It is the responsibility of each school system to evaluate its own program and to provide a comprehensive health education program for every school child.

Neil V. Sullivan
Commissioner of Education

ACKNOWLEDGMENTS

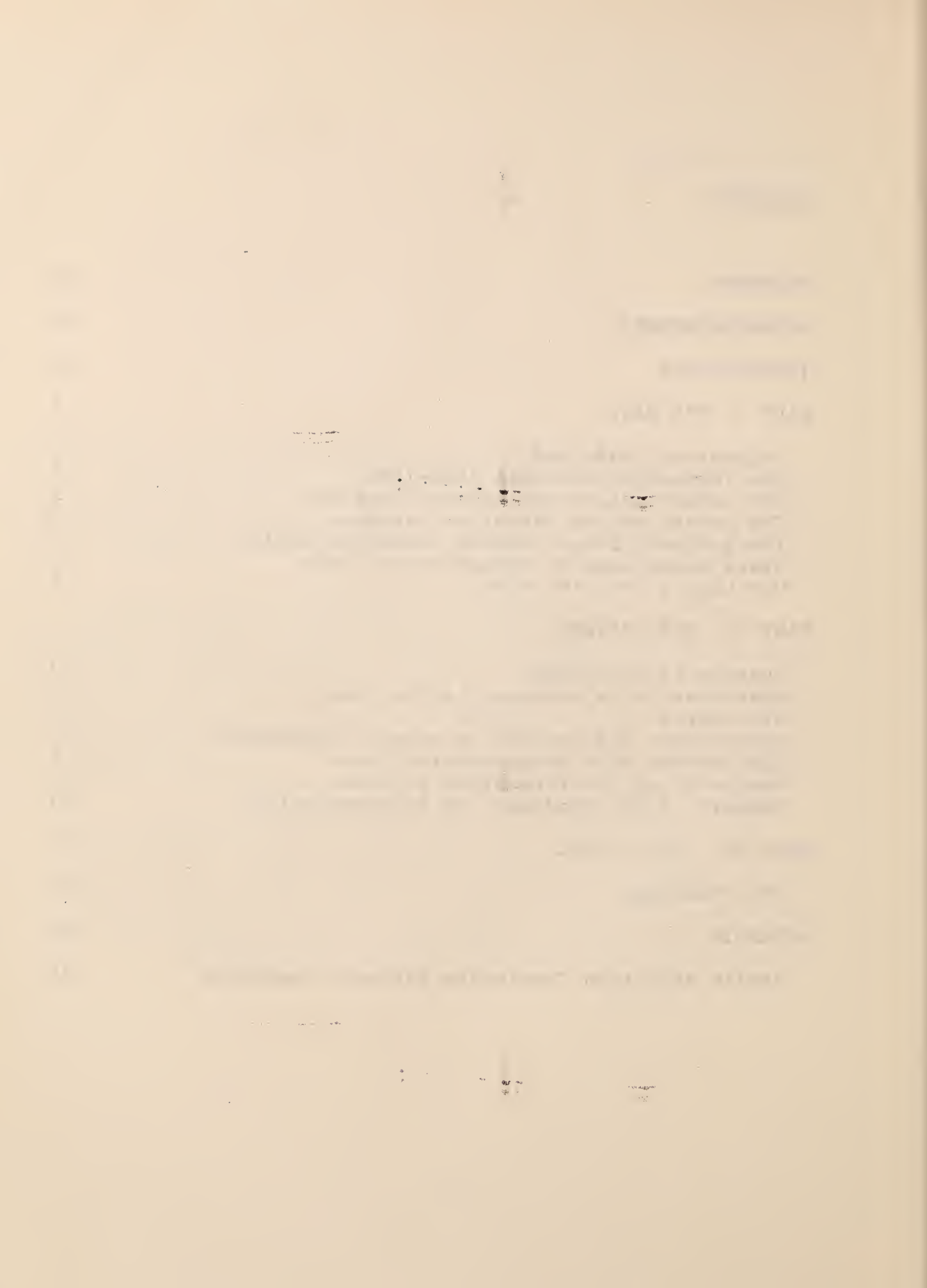
The Department of Education wishes to identify this survey as one segment of a project grant funded under a Small Project Grant through the United States Department of Health, Education and Welfare, Office of Education, Bureau of Research, Region I Office, John F. Kennedy Building, Boston, Massachusetts.

Grateful acknowledgment is extended to each administrator and school system assisting in this survey. Special appreciation is expressed to Mary E. Spencer, Ph.D., Consultant in Health Education, to Assistant Commissioner James F. Baker and staff, Division of Research and Development in Woburn, and to Paul J. Andrews, Project Director, Drug Abuse. The members of the Health Education Curriculum Advisory Committee must also be thanked for their enthusiastic support and professional contribution to this project.

This survey would not have been completed without the kind assistance of Jesse O. Richardson, State Director of the New England Educational Assessment Project, in printing and mailing the questionnaire. The New England Educational Assessment project is a cooperative regional project of the six New England States funded under Title V, Section 505 of the Elementary and Secondary Education Act of 1965.

CONTENTS

FOREWORD	iii
ACKNOWLEDGMENTS	iv
INTRODUCTION	vi
PART I THE PAST	1
Beginnings 1838-1850	1
The Temperance Movement 1880-1890	1
The Humanitarians and Health Education	2
The Modern Health Education Movement	3
The National School Health Education Study	5
State Leadership in Massachusetts 1970	5
Our Legacy from the Past	6
PART II THE PRESENT	7
Purpose of the Study	7
Questions to be Answered by the Study	7
Procedures	8
Descriptive Information on Survey Respondents	9
Limitations of a Questionnaire Study	9
Analysis and Interpretation of Data	9
Summary of the Findings and Recommendations	25
PART III THE FUTURE	29
The Challenge	29
APPENDIX	30
Health Education Curriculum Advisory Committee	30



INTRODUCTION

School administrators, deeply involved until recently with the national curriculum reform movement embracing the academic disciplines, have suddenly found themselves in the midst of a crisis that is anything but academic and cannot be ignored. As the drug epidemic like some lethal disease spread from town to town leaving a trail of victims behind, anxious parents and concerned citizens pressured school officials to help the community solve this awesome problem. Because of the emergency nature of the situation, the schools responded initially with a crash drug education program designed to meet the students' immediate need for facts and reliable information. But as educators and community leaders sought to uncover causes for the wave of drug abuse and related social ills like the spectacular rise in venereal disease among adolescents, other unmet needs of youth were apparent. Educators were confronted with the need for planning a comprehensive health education program to develop not only drug abuse education but also other health units, such as smoking and health, family living, and alcohol education, too often presented as separate entities when they are really parts of a whole.

Thus the present crisis has generated new interest in health education, and history is repeating itself. For in times of major health crises, health education has always emerged as a priority value, and the community has expected the schools to provide it. The reasons for this periodic crescendo of interest in health education as a part of the school curriculum are obvious.

1. Citizens' faith in the power of education to counteract social ills whether racism, highway accidents, juvenile delinquency, malnutrition, or drug abuse has persisted.
2. The schools provide an arena in which the community can achieve not only the education of youth but also the education of the general public on problems of immediate concern to the community.

The evolution of health education in the public schools of Massachusetts documents this trend to move forward by crises rather than by objectives, a phenomenon presently exemplified by the burgeoning interest in drug abuse education in the schools of the Commonwealth.

In Part I the various elements that have fashioned the course and destiny of the school health movement in Massachusetts as it has developed through the years are discussed. With this background, Part II, a study of the present status of health education in the schools of the Commonwealth, can be brought into sharper focus.

PART I THE PAST

Beginnings 1838-1850

For nearly a century and a quarter health education has had a place in the curriculum of the Massachusetts public schools. It was conceived in a time of crisis when the first major educational reform movement overspread the schools of this Commonwealth. Horace Mann, first Secretary of the Massachusetts Board of Education, initiated the then radical doctrine of universal public education, providing for free education for the masses as contrasted with education for the elite in the academies of the period. Mann's relentless pursuit of his goal resulted in a major social reform eventually making education a reality for all. Children, even those from illiterate immigrant families, flocked into the common schools once they were established in their districts.

Convinced health was the handmaiden of literacy, Mann further pressed for the addition of health instruction to the basic curriculum of the three R's and geography. During the entire twelve years of his state leadership, he fought his one-man crusade for health instruction with the result that in 1852 Massachusetts passed the nation's first health law. This legislation mandated the teaching of health (physiology and hygiene) in all the schools of the Commonwealth. Health education has been a required subject of instruction ever since. Health education originated in Massachusetts to serve a community need, in this instance, the Americanization and socialization of children entering American life and democracy through the public school system of this Commonwealth.

The Temperance Movement 1880-1890

For the next three decades (1850-1880) health instruction through the teaching of physiology was routinely accepted as part of the curriculum. Interest centered, however, on the newly developing gymnastic movement activated by the influx of immigrants from Sweden and Germany. The national systems of gymnastics they brought with them were soon adopted by American schools.

Then suddenly health education was catapulted into a position of national significance when it was singled out as the vehicle for a unique attempt at social reform. The Temperance Movement was activated on a national scale in

1880 by the Women's Christian Temperance Union to counteract the epidemic of alcoholism wreaking particular havoc among industrial workers overwhelmed by the horror of existence in city slums.

The members of the W.C.T.U. reasoned that the young must be spared the fate of their elders and that only the schools could achieve this goal. Acting as one of the most powerful pressure groups ever to affect American education, the crusaders for temperance took on, one by one, the various state legislatures to garner votes for alcohol abuse education for every child in the nation. The success of this first nationwide promotion of health education is underscored by the fact that between 1882-1890 thirty-eight states placed on their statute books laws requiring "the teaching of health with particular reference to the harmful effects of alcohol, stimulants, and narcotics." By 1903 the number of states with such laws had grown to forty-three. Massachusetts joined their ranks in 1885.

Social critics and educators over the years have debated the effects of this mass movement for alcohol abuse education. The social critics attributed the passage of the Volstead Act forty years later to the climate created by this form of education required throughout the nation. Educators have been more skeptical. Whatever its long-term social implications may have been, its short-term effect was the inclusion of alcohol education in the schools, usually in the required health education (physiology) course.

The Humanitarians and Health Education

Alcoholism was not the only health problem where the schools were pressed into service by the community. In the wake of the Industrial Revolution poverty, overcrowding, squalor, disease, and want, as well as corrupt politics intensified to such a degree that only total reform could provide a way out. This reform took the form of the Humanitarian Movement of the late nineteenth century. The movement was spearheaded by socially oriented citizens, settlement house workers, community nurses, and others who fought poverty through concerted efforts to awaken a social conscience in the community. In pursuing their goal these progressive groups initiated a number of school health activities that were eventually incorporated into the general educational program.

The use of medical inspectors in the schools and the addition of a nurse to the school health team at the turn of the century laid the groundwork for future health service programs. In the first decade of the twentieth century pressure groups outside the schools promoted penny milk lunches, open-air, ungraded, and nutrition classes, special classes for pupils with defects in sight or hearing, and hot school lunches adding new dimensions to school health programs in Massachusetts. School experiences rather than a text provided education in health, and the schools assumed full responsibility for these programs once their value had been demonstrated. Health activities were initiated by the community to meet classroom crises. Prolonged absences because of unsupervised communicable diseases, unrecognized or uncorrected physical defects, malnutrition, and handicaps to learning were all conditions the Humanitarians sought to remove or at least ameliorate in their alliance with the schools.

The Modern Health Education Movement

Health services in the schools grew apace, but health education, still mostly a book program, was criticized increasingly because of its ineffectiveness in changing behavior. National defense needs accentuated by World War I intensified this criticism as recruits for the various branches of the armed services were found wanting in stamina, good nutrition, and mental and emotional fitness. The schools were accused of "health informing" but not "health educating" their students. True to the American tradition of faith in the legal process, many laws aimed at physical fitness through physical education were passed to meet immediate needs. New types of functional health teaching appeared, largely promoted by voluntary health agencies like the Child Health Organization of America and the various branches of the then National Tuberculosis Association. With new health education programs, new instructional materials, and various conferences and institutes for retraining teachers, these health groups generated a veritable renaissance of interest in school health education that had many ramifications in the ensuing years.

The initiation of a special program to train public health education specialists at the Massachusetts Institute of Technology in the early 1920's, the development of a health education major for school personnel at Columbia University in the same decade, the establishment of a modern health education program in the Newton public schools with the assistant superintendent as the director of health education, and the Malden, Massachusetts Studies in Health Education under the auspices of the Massachusetts Institute of Technology were landmarks in the beginning of health education as we know it

today. In the 1920's health education began to appear as an administrative entity as well as a subject in the curriculum. The first and oldest professional health education association, The New England Health Education Association, was founded in Boston in 1925. Directors of health education were subsequently appointed in Brockton, Pittsfield, Malden, Cambridge, and Beverly to name a few school systems.

The modern health education movement gave health education an identity of its own apart from physical education with which it had been administratively coupled almost from its inception. With this separation health education began to develop as a profession with its own standards and requirements for professional practitioners. Colleges began to offer courses in health education, and at least two local universities established departments of health education to prepare and to meet the in-service needs of teachers. Harvard Summer School in 1948 offered the first seminar in health education for Massachusetts secondary school teachers under the joint auspices of the Massachusetts Department of Education and the Massachusetts Department of Public Health. The latter funded the course and supplied the chief of its Bureau of Health Education to teach the course. In the 1940's the Massachusetts School Health Council was formed at the state level with representatives from the Departments of Education, Public Health, and Mental Health to study and advise on school health problems.

Before the mid-century mark several publications jointly produced by the State Departments of Public Health and Education appeared influencing practices in the public schools. Notable among these were The School Physician's Handbook and the first Guide for Health Education in Secondary Schools. The latter was followed by a similar publication for junior high schools in the Commonwealth. Trade publishers vied with one another in producing health text series incorporating the latest in pedagogical thinking. The dryas dust text was supplanted by activity books with health projects and problems relevant to the needs and interests of pupils. Industrial groups such as the New England Dairy and Food Council supplied well-graded, scientific, and colorful material in the field of nutrition. By the 1950's health education in Massachusetts had become a community affair.

The National School Health Education Study

While the School Health Education Study was national in scope, it has a bearing on health education in Massachusetts schools and for that reason is singled out for mention here. Because of the magnitude of the study, the attendant publicity, and the fact that every superintendent in the nation was sent a report, possibly no other health education development has ever enjoyed such visibility throughout the country or such an opportunity to affect school health practice. Whether or not this result has been achieved cannot yet be determined, but one outcome is clearly evident. This study has had a catalytic effect on health education activities at the state level in various parts of the country. The national study has stimulated a number of states to assess their own achievements in this area, using the format and structure of the School Health Education Study for their research, in toto or in modified form, as has been done in this study of health education in Massachusetts schools.

Carried out in the early 1960's, the School Health Education Study was undertaken by a group of leaders in health education who felt a research base was necessary for any future planning of health education curricula. It was the first nationwide study of the status of health education in American schools. It showed who taught health, what was taught, when it was taught, and with what results. Although the study results were used to structure a model for developing a modern health education curriculum using the concept theory as well as to produce classroom materials, its most important contribution was to stimulate state and regional groups to study and evaluate their own programs. This timely professional activity has been carried out by at least two New England States, Massachusetts and Rhode Island.

State Leadership in Massachusetts 1970

Educators' growing interest in health education as part of a balanced curriculum, the inclusion of health in the state curriculum structure set up in the Willis-Harrington Report, the continued activity of local community groups in critical areas of health education, and the present state-wide health crises have all contributed to focusing attention once again on health education at the state level. As a result health education is one of the curriculum areas presently given priority consideration by the State Department of Education. A "Policy Statement on Health Education," voted by the State Board of Education in 1968, set forth clearly the Board's views on the place and importance of

health in the school curriculum. Two technical advisory committees were appointed by the Commissioner of Education, one for drug abuse education (1967) and one for the general field of health education (1968). Both have been active in their respective areas: the former with the various publications and workshops of the Department in drug education; the latter with the production of a guide for health education for elementary and secondary schools.

To furnish more aggressive leadership in health education, the Department staff has been augmented. Their responsibilities include advising local school systems, assisting in setting up local and regional workshops for teachers conducting research and studies in this area, implementing a statewide program of assistance in drug abuse education, and planning and publishing a comprehensive curriculum guide, grades 1-12 inclusive (1971). Since local systems look to the State Department of Education for assistance in planning and implementing their instructional programs, the present momentum of activity augurs well for the future of health education in the schools of the Commonwealth.

Our Legacy from the Past

What then has been our legacy from the past? In Massachusetts for nearly a century and a quarter we have had a state curriculum requirement in the area of health education. But this requirement lacked precise definition. The development of health education and of school health programs in the cities and towns has been due largely to legal pressure, vested interests, powerful citizen groups, national defense needs, and various crises that called for alliance of school and community in a common cause. State requirements in this area have been lacking, and state certification of instructors non-existent. Each district has been free to meet its health education responsibilities as it sees fit. How well has this been done? What does the present self-study reveal? Has Massachusetts lived up to its reputation as a pioneer in the field of health education?

PART II THE PRESENT

Purpose of the Study

With the unprecedented growth in the number of requests from local communities seeking assistance from the Department of Education on critical health education problems, an Advisory Committee in Health Education was appointed by the Commissioner of Education and approved by the Board of Education. This committee was charged with establishing a focus for school health and developing guidelines for a curriculum in health education. To carry out its responsibilities, the committee sensed the need for more accurate knowledge of present health education programs. Hence, this study was undertaken to provide an overall picture of the status of health education in the public schools of the Commonwealth.

Since this publication reports not only general trends in health education but also strengths and weaknesses in existing programs, it serves the dual purpose of providing Massachusetts educators with an overview of the status quo of health education as well as with pertinent information from which to decide if changes in their own programs are needed.

Questions to be Answered by the Study

1. Is health education a major objective of education in Massachusetts schools? In theory only? Or in actual practice as evidenced by the provision of a scheduled time, materials appropriate to modern methods of teaching, credit for promotion and graduation, and adequately prepared teaching personnel?
2. How is health education organized? As a basic course with adequate scope and progressive sequence from grade to grade? Correlated with or integrated into existing courses? Taught as several discrete courses? Or unplanned, using only "teachable moments" as they arise in existing courses?
3. How is the content selected?
4. How do educators at the local levels perceive their problems, handicaps, and frustrations? What solutions do they suggest?

Procedures

The following steps were taken in implementing this survey:

H. Marie Garrity, Ed. D., Senior Supervisor in Health Education in the State Department of Education, was designated as the coordinator of the entire project.

The Department prepared a "Proposal" requesting a small grant of federal funds to undertake the venture. Under the Elementary and Secondary Education Act of 1965, Title V, Section 503, P.L. 89-10, the grant was approved and funded by the United States Office of Education.

Through the cooperative efforts of the Massachusetts Director of the New England Education Assessment Project, the questionnaire used in the national health study (SHES) was made available for use in this project.¹

A letter from the Assistant Commissioner of Education requesting their cooperation was mailed with the questionnaire to all superintendents of schools. One follow-up letter was sent to districts failing to return the questionnaire by the requested date.

The statistical data were tabulated by the Department of Education, Research and Development Center and by graduate students from the Boston University School of Education, Department of Health Education.

A specialist in health education with broad local, state, and national experience served as a consultant for the project, analyzing and interpreting the data and writing the report.

1. E. M. Sliepcevich, School Health Education: A Summary Report, (Washington, D. C., School Health Education Study, 1201 Sixteenth Street, N.W., 1964).

Descriptive Information on Survey Respondents

In order to make the study as inclusive as possible, questionnaires were sent to all school systems in the Commonwealth, a total of 267. Returns were received from 165 districts, approximately 62 percent of those polled. For various reasons such as failure to complete the questionnaire, omission of identification of the system, or receipt of the questionnaire after the tabulation of the statistics had begun, eight returns had to be eliminated from the study. The summaries, therefore, represent the responses from 157 school districts, approximately 59 percent of those polled. The districts responding represent a total of 1263 elementary schools and 296 secondary schools. These schools represent a total of 432,253 pupils enrolled in the elementary and 316,842 in the secondary schools participating in the study. The questionnaires were signed in the majority of cases by the chief administrative officer of the system, the school superintendent. Administrative personnel in charge of curriculum in health education or health and physical education accounted for the remaining returns.

Limitations of a Questionnaire Study

In this study, as in all questionnaire studies, certain hazards and biases are built-in. The districts most likely to respond are those with worthwhile programs. Those districts not responding may have recognized the inadequacy of their present health education offerings and chosen not to report. If these assumptions are valid, the picture of health education in the schools reporting may be somewhat better than that for all the schools in the Commonwealth.

These observations, however, do not militate against the usefulness of the study for the purposes for which it was undertaken. Its returns do indicate what a majority of Massachusetts schools are now doing in health education. It, therefore, provides a base for charting future developments in health education in the schools of the Commonwealth. It also presents school administrators with an overall view of health education as it is presently evolving in the schools.

Analysis and Interpretation of Data

Reason for Offering Health Education

1. Why is health education included in the curriculum?

More than 90 percent of the respondents stated their first reason for offering health education was "to fulfill

the educational objectives of the school program." Approximately 80 percent ranked "to comply with the state requirements" second, while 75 percent ranked "to comply with local requirements" third.

The health education theory of Massachusetts schools is superior in light of the results of the national study. Approximately 80 percent of those school districts cited as the rationale for their programs that health is an important objective of modern education. But theory does not always carry over into practice. Only a comprehensive study of existing programs can indicate whether or not the accepted philosophy has had a functional effect in upgrading local programs. Perhaps the replies to this questionnaire study may throw some light on the translations of theory into practice in local school systems.

Organization for Health Education

2. What are the organizational patterns for health education in the elementary schools?

Correlated health instruction was the most common organizational pattern reported for elementary schools, having been used in approximately three-fourths of the schools answering the questionnaire.

Integrating, as opposed to correlating, the planned health unit into other subjects in the curriculum began to appear in grades 5 and 6 where slightly more than one-quarter of the schools reporting used it as one method of organization. Health content integrated into other subjects continued to be reported in the junior and senior high schools, even when the separate health course had been set up.

Less than one-fourth of the districts responding indicated that health was scheduled as a separate subject with a definite time allotment in their elementary schools. Incidental health instruction with reliance on the so-called "teachable moment" seemed to prevail as often as the scheduled health class.

3. In what elementary school subjects is the content of health education included?

Practically all subjects in the curriculum with the exception of geography and foreign languages were reported as vehicles for health instruction. At all levels science was most frequently mentioned, with physical education ranking a close second. Subjects with which health was most frequently correlated were as follows (arranged according to frequency of mention):

1. Primary Grades: science, physical education, language arts, especially reading, social studies.
2. Intermediate Grades: science, physical education, social studies, language arts, especially listening, art.
3. 7th and 8th Grades: science, physical education, homemaking.

Using correlation as the sole method of health instruction was prevalent in the majority of schools reporting in this study. Is it so widely employed because of lack of time or failure to schedule a period for health education? Does it assure a comprehensive course in health education with progressive sequence from grade to grade? Or does this method cover only the areas of health that are easily correlated with science or social studies neglecting others like mental and emotional health?

Research evidence confirms the superiority of direct health instruction over indirect and incidental methods in effecting behavioral change in pupils. Correlation, integration, and utilization of "teachable moments" are all considered valuable adjunct methods to be considered in planning or coordinating the health curriculum. But they are not a substitute for the well-organized, comprehensive health course that insures scope and sequence of content with a minimum of repetition.

Allocating health instruction to the science course, the most common form of integration reported here and elsewhere, has been questioned by both science specialists and health educators because the educational objectives of health differ from those of science.¹ Health educators also question the amount of health subject matter that can be taught in existing elementary science courses where content is subordinate to the scientific methods of inquiry, experiment, and discovery.²

1. Sliepcevich, op. cit.
2. Lawrence B. O'Reilly, "Let's Get the Health out of Science," The Journal of School Health, Vol. 34, No. 4, (April, 1964), p. 153.

Linking health instruction with physical education in lieu of establishing a comprehensive health course also leaves much to be desired, if the health content is limited to first aid or some such area often assigned to the already overburdened physical education teachers.

4. To what extent is health education offered and required as a separate course on the secondary level?

Approximately 35 percent of the districts responding listed health as a separate course required of all students in their secondary schools. Less than 10 percent offered health education as an elective course for some students. One half reported they offered no health education course as such in their secondary schools. Nearly two-thirds of the secondary schools taught health through integration with other subjects.

In short a secondary school student in more than half these schools reporting would be hard put to further his knowledge and understanding of community health problems like air and water pollution, inner-city health problems, housing, and other concerns of questioning youth, not to mention his own personal health, unless he elected a course where such topics were treated tangentially.

The quantity of scientific health information available for discussion is burgeoning, increasing the amount of accurate scientific facts and concepts needed today for self-direction and responsible health behavior. Social health problems, solved only by adolescents making wise behavioral choices, are also increasing. Thus the need for a required health course of substance in every secondary school seems abundantly evident. No administrator or educator concerned with meeting the persistent demands of youth for relevant education can afford to overlook the possibilities of such a course taught by a professionally trained health educator who can communicate with socially concerned adolescents. That educators are being alerted to this need and are taking steps to meet it is a current trend.

5. In what other subjects at the secondary level are specifically planned health units included?

Biology, general science, home economics, and physical education were the subjects most frequently used for integrating health education units in both the junior and senior high schools. Not all schools reporting used all four subjects for integration purposes. The question similar to that posed previously at the elementary level must

be asked. How much health education can any one student be assured of receiving when integration is the sole method of instruction employed?

In biology, a subject generally required in secondary schools, certain health course components would be presented as science but not necessarily as applied science or health education. Health education via general science and home economics would reach only limited segments of the student population, since they are not required for all students. Even in the unlikely event all three subjects were pursued by a student, large areas of essential health content could be omitted.

Physical education is often confused with health education by general educators and administrators who assume the course titles are interchangeable. Although physical education makes a valuable contribution to the individual's health, the two areas are not identical. The depth of information required to provide a comprehensive health education program argues against scheduling health education and physical education programs interchangeably.

Because of the joint administration of these programs throughout their development and in many districts even today, the tradition of health and physical education has been established and is difficult to change. But to the professionally trained health educator, health education and physical education are two separate entities.

Grouping Students for Health Education

6. How are boys and girls grouped for health instruction?

In 90 percent of the elementary schools reporting, boys and girls were grouped together. In the other 10 percent, the sexes were separated for certain segments of the course, most commonly for 5th and 6th grade units in family living.

Homogeneous grouping by sex for all health classes was more frequently reported in the secondary schools, occurring in slightly more than a third of the schools reporting. Heterogeneous grouping for all health classes was reported by 44 percent of the schools responding. Separation of the sexes for certain segments of the course occurred in 22 percent of the schools. If the sexes were separated for the entire course, lack of space or administrative reasons were cited as causes.

Instructional Time Provided

7. How much time is devoted to health education in the elementary and secondary schools?

A gradual increase in the time allotment for health education from kindergarten to grade 8 was evidenced in the reports from the elementary schools where the time span varied all the way from 5 minutes to 250 minutes weekly, with an average of 48 minutes at the kindergarten-grade 6 level. In grades 7 and 8, time allotments varied from 40 minutes to 180 minutes weekly; the average was 150 minutes weekly divided into three periods.

In the secondary schools, the amount of time scheduled for health increased gradually grade by grade until grade 12 where the average number of class periods weekly was 4.7. The reader overly enthusiastic about this excellent apportionment of time is reminded that health is offered as a separate course in only 35 percent of the secondary schools responding.

Attention is also called to the fact that with correlation and integration so prevalently used, it was impossible to estimate precisely the amount of time devoted to health education at any level, since only time set apart for a specific health course was reported.

Course Titles

8. By what title is the separate health course designated on the secondary level?

In the schools responding, health is taught under a wide variety of titles. Among those most commonly used are: health, health education, health and safety, hygiene, life science, physiology, physiology and health, public health, and psychology and health. All these titles should represent a comprehensive course based on a standard text, a guide, or an outline.

Extremely significant, however, is the number of schools reporting a required course in health education under such titles as: family living, sex and family living, smoking and health, first aid, drugs, medical self-help, home nursing, alcohol education, driver education, and nursing. If these titles are indicative of the content of these courses, many of the schools responding are offering aspects of health education instead of a comprehensive course, possibly due to the present health crises and to community pressure for school action in these areas. As noted in the position paper of the

State Board of Education, these categories are best taught in the regular health education course rather than in discrete courses.

Still other districts report these titles for their secondary school health course: science, science and health, general science, biology, homemaking, home economics, and physical education. These titles reinforce the earlier finding that much of the health education carried on in the secondary schools occurs through health units in established high school courses.

In the secondary schools, grades 7 through 12, as many schools report physical education as the title of their health course as those who report health or health education. In many Massachusetts secondary schools, then, the transition from the former physical education to the modern health education program has not been made.

Credit Toward Graduation

9. Is credit toward graduation granted for health education, and how does it appear on the student's permanent record?

Of the 35 percent of Massachusetts high schools requiring a course in health education, approximately one half give credit for the course, while slightly fewer than half do not credit the course for graduation. Credit appears under the title health and physical education as well as under the title health.

Teachers of Health Education

10. Who teaches health in the elementary and secondary schools?

In approximately one half of the school systems responding, the classroom teacher was responsible for health instruction at the elementary level. Another third of the respondents indicated the classroom teacher, assisted by a coordinator, taught the course. Since at the time the survey was made only a small number of districts employed health coordinators, this coordinator was presumably coordinator or supervisor of elementary education.

At the secondary level, grades 7-12, in the school districts reporting, the teacher with a major in physical education was the health education instructor in more than 65 percent of these schools. About 8 percent of the respondents reported that their secondary school health courses were taught by teachers with a major in health education, while 7 percent indicated that the school nurse was the health education instructor.

When health was integrated into courses like biology or home economics, the instructor of that course was responsible for teaching the health units in the course. This pattern of integration appeared so frequently in the schools responding that apparently a wide variety of instructors with preparation in fields other than health were teaching health in the schools of the Commonwealth.

11. What other responsibilities have health instructors on the secondary level outside of teaching assignments?

Guidance and counseling, nursing services, and athletic duties were the most frequently mentioned extra teaching assignments at both the junior and senior high school levels. At both levels guidance ranked first, 32 percent engaging in this activity in the junior high schools and 41 percent in the senior high schools.

12. Is health education a requirement for certification of classroom teachers or a condition of employment in school districts with elementary grades?

The Commonwealth of Massachusetts does not require a course in health education for certification; and in no instance was the completion of such a course cited as a requirement for employment in the school districts included in this study.

13. What in-service educational opportunities are provided for teachers in health education?

Teachers' meetings were mentioned most frequently as the method used to give in-service training or to update teachers in health education. These were reported by 48 percent of the respondents. There was no mention of the frequency of such meetings. One a year? One a month? Occasionally? Sixteen percent of the schools responding listed health curriculum development by some teachers as their method of in-service growth for their teaching staff.

The responses to questions 10-13 above, relating to teachers in the health education program, deserve interpretation and special comment, since the teacher is the key figure in the entire school health program. This study demonstrates that the classroom teacher with little or no help carries the burden of health education in the elementary schools studied. Since at present health education is not a required subject for elementary majors in the state colleges and since it is not required in the private liberal arts colleges, the teacher comes to the classroom ill prepared for specific health instruction.

As reported here the opportunities for in-service education in health on a district-wide basis are almost nonexistent, since one teachers' meeting yearly or even several, does not constitute quality in-service education. Valuable as the experience may be for professional growth, service on health curriculum committees is intermittent at best, available to only a few select teachers. In light of the wealth of resources available for the continuing education of teachers in Massachusetts, their in-service education in health, the teaching of which is mandatory in all schools, seems inadequate and well below par. Whether this is due to apathy, indifference, lack of motivation on the teachers' part, or the absence of aggressive leadership on the part of school administrators can only be surmised.

Massachusetts is particularly fortunate in the number of universities and state colleges offering health education workshops, extension courses, and seminars in health education on campus and in local regions. It is equally fortunate in the number of voluntary health agencies and industrial health groups that have funded such opportunities for teachers. But unless administrators take a more active interest in health education, giving it status and prestige in the curriculum, and unless teachers can gain promotional credit for self-improvement, they will ignore health education seminars and conferences in favor of others more highly valued by the educational hierarchy. Continuing teacher education in health should be aggressively promoted by school superintendents and not left to chance.

For a number of years health professionals as well as educators have talked about health as a requirement for teacher certification, but this requirement has not materialized. It is generally agreed by health education leaders that at least one comprehensive course in health education should be required for certification as an elementary

teacher in Massachusetts. For teachers already in service, provision should be made by local school systems for required courses or workshops given in the community to prepare teachers for their responsibilities in this area.

Teacher selection for secondary school health instruction and specialized preparation for this undertaking also need upgrading. Temporary use of professionally trained physical educators to teach health at the secondary level may be convenient or necessary but, as an established practice, is less than desirable for several reasons. Specialization in physical education in college precludes specialization in health education, the sine qua non for responsible health teaching at the secondary level. The physical education teacher responsible for extra inter-mural and extra-mural activities does not have adequate time to attend to health education. Each is a full-time job, and many physical educators have neither interest nor competence in health education, despite their ability in their own specialty. They do not seek or desire the responsibility of teaching another discipline.

The problem of teachers or instructors in health education in Massachusetts schools, as revealed in the schools encompassed by this study, calls for one further comment. Since much of the health instruction was carried on by correlation with and integration into other subjects, many teachers of varying backgrounds and degrees of preparation are engaged in this program. If the program is to succeed in these circumstances, a high degree of coordination to insure adequate scope and sequence and to eliminate undue repetition is essential. Teachers prepared in other disciplines must become familiar with the philosophy and goals of health education as well as with the content of the health units incorporated into their specialties. This calls for adequate direction and overall supervision of the school health education program by a competent health coordinator, a specialist in this field. The lack of adequate supervision in this field in the schools studied was noted. This compounds the existing problems of inadequate pre-service teacher preparation and the lack of in-service education for teachers.

The overall picture of teacher education for health education in the Commonwealth deserves special study in depth to correct existing conditions. Such a study may indicate that the difficulty lies at the local level. Until school administrators give status to health education and demand trained teachers certified in this subject to fill their teaching positions, neither the teacher education institutions nor the teachers themselves will be sufficiently interested to change the status quo.

Teaching Facilities, Class Size, Textbooks

14. What are the teaching facilities in secondary schools for health instruction, and what is the average number of students assigned to a class?

Any available space seems to be the answer of the respondents as to where health is taught. In rank order the places mentioned were:

1. The auditorium
2. The gymnasium
3. A special health classroom
4. The locker room
5. Any available classroom
6. The school library

Does the auditorium, then, suggest a lecture course? Does the library suggest a supervised reading or study course? Does the gymnasium suggest a physical education class? Class size varied from 10 to 35 students, with 30 the most frequently mentioned figure.

15. What is the practice regarding the use and adoption of health textbooks on the elementary level?

Of the schools responding, 32 percent used texts in their elementary schools. Of these, 42 percent reported using a single series of texts, while 20 percent used two or more series. In 28 percent of the schools, appropriate texts for each grade were selected without reference to the series or publisher. This often resulted in using texts from several series.

Resources for Determining Course Content?

16. What resources are used in elementary and secondary schools as a basis for determining course content?

At the elementary level, several determinants for course content were reported: the needs and interests of pupils, teachers' decisions, the local curriculum guide, and the adopted text. Each received approximately the same number of replies, 17 to 20 percent. A combination was used by the remaining 20 percent.

At the junior high school level, the text ranked first as the determinant of course content with the use of the local curriculum guide a close second.

Pre-testing to determine the student's previous learning and present knowledge most frequently preceded setting up the senior high school health course. Teacher-student planning ranked next, with instructors' decisions the third most frequently used basis.

At this point in the educational reform movement, community pressure and student involvement in improving health education are not evident. Health education could become a just cause for present-day students demanding relevant courses and wanting a part in the educational decision-making process.

Content of Health Education

17. What is taught in health education in the elementary grades?

In the primary grades the topics most frequently mentioned as part of the health curriculum were: accident prevention, cleanliness and grooming, dental health, rest and sleep, and community helpers.

In the intermediate grades the same topics again received major emphasis. To them were added: food and nutrition and exercise and relaxation.

Where grades 7 and 8 were part of the elementary school, one new area under the category "Most Frequently Mentioned," smoking, was introduced into grade 7. Again, most frequently taught in those grades were such topics as cleanliness and grooming, accident prevention, exercise and relaxation, and foods and nutrition. Topics most frequently mentioned for grade 8 in these schools were: boy-girl relationships, structure and functions of the body, and vision and hearing. Cleanliness and grooming were again found in the most frequently mentioned column.

Topics least frequently taught throughout the elementary grades were: sex education and family living, venereal diseases, foot care, alcohol education, non-communicable diseases, health careers, and international health activities.

A careful analysis of the topics taught in elementary schools leads to the conclusion that the updating of present health education programs has not kept pace with revisions in mathematics, science, and the social studies. The heavy emphasis on cleanliness and grooming from kindergarten through grade 8 could only lead to endless repetition and boredom. The grade by grade appearance of several other topics usually allocated to the primary grades such as dental cleanliness, rest, and sleep also seems unduly repetitive.

On the other hand, the introduction of salient topics such as smoking, drugs, alcohol education, and family living as late as grade 8 seems out of line with the needs and interests of young people, especially since these schools cite 'studying the needs and interests of pupils' as a determinant of content. Their needs in the areas cited above are evident as early as grade 5 if not earlier in some instances.

18. What is taught in health education in the secondary school where health is taught as a separate subject?

At the junior high school level, topics most frequently mentioned were: alcohol, drugs, narcotics, smoking, exercise, rest and sleep, cleanliness and grooming, accident prevention, the structure and functions of the human body, nutrition, and vision and hearing.

Listed as topics least frequently taught in the junior high schools were: community health programs, consumer education, health careers, preparation for marriage, and international health activities.

The topics emphasized in the senior high school, judged by their frequency of mention, duplicate those listed for the junior high schools with two exceptions: boy-girl relationships and research developments in health and medicine.

Topics least frequently taught in the senior high schools were: community health programs, health careers, environmental health hazards, weight control, non-communicable diseases, international health activities, and preparation for marriage.

Most health experts would agree that the topics most frequently taught in the secondary schools were current problems of priority value in setting up any secondary school health course. Generally missing, however, was instruction in community health problems and services, in medical care, in consumer and urban health problems, and in the increasingly pervasive role of government in public health. Mental and emotional health was as infrequently listed a topic as the effect of pollutants, sanitation, food additives, and other ecological problems on health. These wastelands stand out conspicuously in the panorama of health education offerings for secondary school students.

Health education today is characterized by an unprecedented proliferation of new knowledge. The disease spectrum is constantly changing with the application of new research findings and with the implementation of new community health programs. The mass media bombard youth with daily accounts of urban health hazards and governmental attempts to counteract them. The achievements in medicine are spectacular. All these resources are available to help the instructor and his

students develop a curriculum. All focus on problems relevant to the life interests of youth. When more meaningful subject matter in all school courses is sought, health education courses as reported here need careful study by local school systems with a view to instituting needed changes in both content and method. The need for enrichment of these courses is abundantly evident.

Problems and Recommendations from the Respondents

19. What problems related to health instruction in the elementary and secondary schools are of concern to the respondents in this study?

20. What recommendations are offered?

As they scrutinized their programs, respondents identified a number of problems on which they want action.

Elementary Schools

At the elementary level the recognition of health as an important subject in the curriculum, with time specifically set apart for it in the daily schedule, was mentioned most frequently as a primary concern for these educators. Practically all respondents noted this lack of time as their first problem.

The need for leadership and for continuing education in health as well as for college preparation in health was also stressed. Almost as many respondents requested the availability of a health education consultant, coordinator, or specialist for assistance in their health education activities and for on-the-job training as those who pinpointed the need for a scheduled health period in the daily or weekly schedule.

Suggestions for in-service education in health were too numerous to list, but most could be subsumed under these categories: regional health education courses for teachers, workshops in the local community, released time for teacher discussion groups, time for the preparation of instructional materials, and graduate courses available locally. State sponsored in-service courses, more health consultant service from the State Department, employment of local health consultants, and required health courses in pre-service teacher education were other needs cited.

The health education course as it now exists was criticized considerably by those answering the questionnaires. The course was categorized as repetitive and lacking in intellectual content with many basic areas omitted for one

reason or another. Teachers were faulted for making poor selection of content because of lack of agreement about concepts to be taught and about placement of units and topics, two conditions over which they had no control. Good curriculum guides, up-to-date texts, and professional guidance in planning and implementing programs were suggested as possible remedies to these conditions.

The community was blamed for inadequate funding of programs, for apathy toward existing programs, and for occasional organized opposition to introducing new areas like family life education into on-going health education programs.

Secondary Schools

The major problems recognized by secondary school respondents were remarkably similar to those enumerated by elementary school educators. In order of frequency of mention, they were: lack of status for health education with accompanying lack of time, space for classes and small discussion groups, and appropriate instructional materials; lack of teacher preparation in this specific area; lack of a definite course of study; and indifference of faculty and community to the need for a required comprehensive course in health education for all students at some point in secondary school. At this level much more emphasis was placed on the problem of organized opposition of community groups to critical areas of the course. This was cited as a real stumbling block to progress.

Problems identified at the secondary level that were not previously listed included the lack of academic credit for health education, the lack of a planned program, too much correlation of health with other subjects in lieu of establishing a separate health course, and the substitution of physical education for health education in courses labeled physical education and health. Lack of trained personnel to teach the health course was a universal problem in these schools.

Again, at the secondary level, there were suggestions for resolving existing problems. A curriculum guide in health education that would command the respect of faculty and community was the most frequent suggestion. This was followed by the suggestion that a required one-year course, meeting at least three times weekly, be established. The problem of lack-of-time elicited suggestions to lengthen the school day or eliminate unnecessary study periods. The need for more assistance from the State, both financial and professional, appeared again and again. Making more health education consultants available and publishing up-to-date teacher information were typical of the services the respondents believed the State should be rendering.

Setting up local and regional health education workshops and holding annual health education conferences for teachers were other suggestions.

The school-community concept of a health education program was evident throughout the responses because suggestions were made for setting up school health councils, for employing community advisory committees, and for providing adult health education programs to parallel the school programs.

At both the elementary and secondary levels the suggestion for more aggressive leadership on the part of school administrators was emphasized, indicating that faculty members below the top echelon may have been consulted before the study questionnaires were filled in. As aptly put by one respondent, undoubtedly a staffer at least one step below top brass in the educational hierarchy:

Headmasters and masters charged with programming should be made cognizant of the importance of health in the total educational program. Program facilities, time allotment, and equipment should receive careful consideration. Teachers must never again tolerate over-sized health education classes, cutting down on scheduled mandatory time, or being forced to conduct classes in halls or auditoriums.

This respondent seems to be telling it as it is and speaking for the silent majority of health instructors in the secondary schools of the Commonwealth. The main criticism elicited by the open-ended question appended to the structured questionnaire seemed to be the lack of support and recognition for health education in the curriculum. Health education specialists have long been aware of the indifference of the community and of school administrators. Finally, however, educators at all levels appear to be sufficiently disturbed about the status quo to become activists seeking better health education while meeting the requests of students for a school curriculum more relevant to their needs and personal problems.



Summary of the Findings and Recommendations

What is the present status of health education in Massachusetts public schools as indicated by this study? What does it tell us about changes needed in present programs? What problems should be given top priority in future planning?

1. Status of Health Education

In theory Massachusetts schools accept health as a major objective of education, but in practice this is not implemented. Judged by time allotments, assigned facilities, credit given, and professional requirements for personnel engaged in health education, this area is lacking in status and administrative support. Educators cannot be convinced of its value and treat it so casually. If the needs of the learner and the needs of society are accepted as important criteria for selecting curriculum content, the fact that health is relevant in the student's overall educational plan cannot be disputed. If health education achieves the goals of assisting students in setting up effective value systems and responsible life styles and of encouraging mature decisions where there are options in behavioral patterns, its value is preeminent. From a purely utilitarian standpoint, health education is a basic area in the current school curriculum.

2. Organization of Health Education

The present organization of health courses revealed in this study leaves much to be desired. The common pattern at the elementary level was correlating health instruction with the so-called established subjects. At the secondary level the health units were commonly integrated with the major disciplines. No definite planning for this intergration was evidenced.

At both levels in the school systems responding it appeared that health was not accepted as a subject in its own right, except in a small minority of cases. At the secondary level a good deal of fragmentation existed with separate courses reported for drug abuse education, smoking and health, alcohol education, and family life education. This may be a temporary situation created by the current health crisis that is being met with emergency measures.

3. Curriculum

The need for a more definite program in health at all levels is obvious from analyzing the course content offered now. In this Commonwealth, as noted previously, the teaching

of health is mandated by school law. Yet at the time this study was made, no state curriculum guide in health education existed. Each local system was on its own in health education. While diversity and innovation are the life blood of educational progress, educators generally are not experts in this multidisciplinary area and could use broad outlines to guide their own creative efforts. To make programs effective, objectives should be stated precisely and general ways of attaining them should be indicated. Top priority should be given to the production of a state guide in health education.

4. Course Content and Teaching Procedures

An analysis of course content and procedures points to the need for drastic curriculum reform to bring both material and methods up to the standards being set for health education in the 70's. The present repetition in themes and topics from 1-12 may indicate that teaching material familiar because of long use has become sacrosanct. At best it has produced a curriculum lacking in challenge and intellectual fiber. As indicated previously, the multidisciplinary nature of the subject and the recent phenomenal growth of the health and behavioral sciences have opened up a wealth of health problems for students to identify, explore, and attempt to solve. For students disenchanted with the status quo, the area of health study offers a ready opportunity to work with school faculties in setting up courses relevant to their needs and concerns.

A concomitant change in methods is also indicated. Courses especially those for urban areas, could be updated and made more meaningful for today's students by focussing on the community and stressing the social aspects of health education. This change would provide opportunities for student participation in community health activities as well as for participation of experts from the community in the school situation. Today's community and family centered health education programs take literally the educational concept of the "school without walls" in allowing students to pursue their own health interests and inquiries. Texts and reading references are still invaluable aids to health understandings, but the newer methods, which have proven their value in other areas, are recommended for possible contributions to motivating students' interest in health education.

5. Teacher Education for Health Education

The lack of pre-service health education for elementary teachers and the use of instructors trained in specialties other than health to teach health at the secondary level are significant findings that deserve immediate attention. While college preparation cannot guarantee effective teaching, basic training in the content of the area to be taught is the sine qua non of teacher preparation. The physical education

teacher, the guidance counselor, the nurse, or the home economics teacher who is assigned classes in health education should also be trained as a health teacher or required to take in-service training to remedy professional deficiencies. All teachers should have access to in-service refresher courses. In brief this study indicates three present needs in the area of teacher education:

1. Required pre-service health education for certification as an elementary teacher in the schools of Massachusetts.
 2. Required certification of instructors in health education in secondary schools.
 3. The availability of continuing in-service education in health through workshops, conferences, seminars, or courses at the local or regional level.
6. Coordination of Health Education Programs

Because of inherent weaknesses in the present systems of educating teachers for assuming health education responsibilities, the need for supportive help and assistance at the local level is apparent. Health education supervision in the local school system would meet many of the immediate needs disclosed by this study: consultant service and assistance for teachers at their home base, formal and informal in-service education, coordination of the present more or less nebulous programs, and leadership in developing and updating curricula as needed.

A more extensive use of professionally trained and qualified health education coordinators or consultants is recommended to insure quality health education programs and teachers prepared to implement them.

7. Administrative Support of the Program

As indicated in this study and as cited by the educators themselves, health education presently needs more virile, aggressive support from administration not the usual imprimatur that brings the program into existence but does not promote it. The attitude of the central office colors the curriculum of the local system. The visible approval and support of the top educational echelon will do more to establish quality health education programs locally than any other force. The busy school administrator with a hundred other demands on his time will probably delegate the direction of the health education program to others. But by providing competent direction, by according health education the status of a basic subject, and by making available funds, resources, and trained personnel, he can insure

the success of the program and at the same time provide the status leadership required. Strong administrative support will insure the success of any health education program.

8. The Role of the State Department of Education

Perhaps no other single comment or recommendation from the respondents was as clear as their desire for backup assistance from the State Department of Education. Their suggestions for assistance ran the gamut from the funding of local innovative health projects, through the need for more health consultants, to requests for more publications and documents to keep them informed of on-going health education programs, experiments, and methods of implementing programs. The need for state sponsored workshops and the desire for more help in implementing new health education programs were also frequently mentioned.

As indicated by their remarks, Massachusetts educators are cognizant of their health education problems and highly perceptive and practical in their suggestions for resolving them. Their many ideas for reforming and upgrading health education in the Commonwealth deserve thoughtful consideration. This is as they see it. The views from their desks provide the best possible base from which to launch a new and improved health education program in the public schools of Massachusetts.

PART III THE FUTURE

The Challenge

As new and interesting developments in the area of administration, curriculum, and teacher education in health are reported across the nation, it is hoped the promise of a more balanced curriculum comes nearer to realization in Massachusetts schools. Educational administrators faced with the various critical health problems of youth in their local systems are turning more frequently to health specialists for assistance in planning and implementing health education programs. Only the acute shortage of professionally trained health education specialists limits wider implementation of comprehensive health education programs.

As noted in Part II, only four cities at the time of the survey employed directors or coordinators of health education. Yet the need for such consultants or coordinators ranked first among the recommendations listed by the respondents. The situation, however, is rapidly changing. The first and most significant trend in new health education programs is to employ a professional. The lack of qualified health educators offers a challenge to institutions of higher learning to meet the growing demand for such professionals. Another need, as expressed by the respondents, is for in-service education of present teachers. Here the opportunities for universities to extend their resources for upgrading local programs are virtually limitless.

As society has advanced and science has conquered some of man's health problems, the same sophisticated technology making these advances possible has produced new and more complex health concerns. A well informed population can more effectively anticipate and prevent rather than react to periodic crises. School and university administrators can contribute immeasurably towards improving the quality of life through carefully planned health education programs.

APPENDIX

Health Education Curriculum Advisory Committee

Leora E. Richardson, Chairman
Dana L. Farnsworth, M.D.,
Consultant
Elizabeth A. Neilson, Consultant
Nancy Bachman
Evelyn Baumann
J. Sanbourne Bockoven, M.D.

Raymond Bogosian
Helen Bowditch

Thaddeus Budynkiewicz
Richard J. Dwinell

Marie Gately

Harry Groblewski

Sidney Listernick, M.D.

Jean Lordan
Robert McCabe
Mary Moriarty
John J. O'Neil

Paul Prescott
Grace Purches
John W. Rogers
Sister Mary Patrick

Carl Willgoose

Needham Public Schools
Harvard University

State College at Lowell
Manchester Public Schools
Dalton Public Schools
Massachusetts Department
of Mental Health
Holden Public Schools
Massachusetts School Com-
mittee Association
Chicopee Public Schools
Massachusetts House of
Representatives
Massachusetts Department of
Public Health
Independent School Associa-
tion of Massachusetts
Massachusetts School Physi-
cians Association
Medford
Boston Public Schools
State College at Bridgewater
Massachusetts Association
for Health, Physical Edu-
cation, and Recreation

Barnstable Public Schools
Pittsfield Public Schools
Rockland Public Schools
St. Francis Xavier School,
South Weymouth

Boston University

Early Childhood Subcommittee

Elizabeth Ajamian
Irwin Elkins
Jane Fitzpatrick, M.D.
Robertine Gray
Margelyn Nilson
Lorraine Patterson

Vincent Russell

Sister Rolande St. Jean

Worcester Public Schools
Milburn Public Schools
Worcester
Lancaster Public Schools
Lancaster Public Schools
Massachusetts Department of
Public Health
American International
College
Diocesan Schools, Worcester

Barbara Sawyer
Gretchen Thayer

North Grafton Public Schools
Northboro

Middle Grades Subcommittee

Teresa Campbell
Anita Charpentier
Geri Diehl
Leona Doyle
Barbara Farrant
John Gainey
Morton Kaufman
Margaret LaVigne

Stoneham Public Schools
Newton Public Schools
Sudbury Public Schools
Woburn Public Schools
Braintree Public Schools
Wayland Public Schools
Sharon Public Schools
Massachusetts Medical
Society-Auxiliary
Chatham Public Schools
Needham Public Schools
New England Medical Center
Tewksbury Public Schools

Malcolm Letts
Doris Purcell
Miles Shores, M.D.
Gerald Smith

Junior High Subcommittee

Robert Collier
Nancy Eisenberg

Belmont Public Schools
Massachusetts Tuberculosis
and Respiratory Disease
League

Bernice Fialho
Joseph Forte
Lawrence Frazier
Ilsa Gottlieb
Ann LaPine
Katherine McCarthy
Ruth Musica, R.N.
James O'Shea, M.D.
Catherine Rogers

Manchester Public Schools
Winchester Public Schools
Rockland Public Schools
Lynnfield Public Schools
Swampscott Public Schools
Andover Public Schools
Melrose Public Schools
Lawrence

Sister Mary Rosalie

Middlesex Respiratory
Disease Association
St. Augustine School,
Andover

Charlotte Scott

Northeast Metropolitan Re-
gional Vocational High
School, Wakefield

Peter Smith
H. Edward White
Perbert Wostrel

Hamilton Public Schools
Wakefield Public Schools
Gloucester Public Schools

Senior High Subcommittee

Harriet Brown
Herbert Curry
Daniel Della Giustina
Charles Drake

Williamstown Public Schools
Chicopee Public Schools
Pittsfield Public Schools
Department of Public Health,
Amherst
Department of Public Health,
Springfield

Emil Ferris, M.D.

Monte Flagg
Norman Hiersche
Carole Korkosz
Richard Kumor
Richard Lawrence

John Michalski
Frank O'Neil
Sister Patricia James

Edith Reinisch
Alfred Sowa

Springfield Public Schools
Westfield State College
Chicopee Public Schools
Holyoke Community College
American Red Cross,
Chicopee
Lenox Public Schools
Chicopee Public Schools
St. Joseph High School,
North Adams
Holyoke Community College
Holyoke Community College

Published by the Bureau of Public information,
Massachusetts Department of Education for the
Annual Administrators' Conference. Publication
#5736 Approved by Alfred C. Holland, State
Purchasing Agent.

